

**MBNMS Research Activity Panel
Meeting Summary
July 10, 2015**

Host: James Lindholm – Shelf and Slope Ecology (CSU Monterey Bay)

Location: Tanimura and Antle Family Memorial Library
Building 508, Rm 1180
Divarty Street
California State University Monterey Bay
Seaside, CA

Date: Friday, July 10th, 2015; 9:00 am to 12:00 pm

Members:

	Discipline	Primary/ Alternate	Name	Institution
X	Research Coordinator		DeVogelaere, Andrew	Monterey Bay National Marine Sanctuary
	Biological Oceanography	primary	Kudela, Raphael	University of California, Santa Cruz
	Biological Oceanography	alternate	Chavez, Francisco	Monterey Bay Aquarium Research Institute
	Deep-Sea Ecology	primary	Cailliet, Greg	Moss Landing Marine Laboratories (retired)
	Deep-Sea Ecology	alternate	Haddock, Steve	Monterey Bay Aquarium Research Institute
	Estuarine Ecology	primary	Lindley, Steve	NOAA Fisheries Service
	Estuarine Ecology	alternate	Wasson, Kerstin	Elkhorn Slough NERR and Foundation
X	Fisheries	primary	Sogard, Susan	NOAA Fisheries Service
	Fisheries	alternate	Grimes, Churchill	NOAA Fisheries Service (retired)
	Marine & Coastal Geology	primary	Storlazzi, Curt	United States Geological Survey
	Marine & Coastal Geology	alternate	Paull, Charles	Monterey Bay Aquarium Research Institute
X	Marine Conservation Biology	primary	Goldbogen, Jeremy	Hopkins Marine Station
	Marine Conservation Biology	alternate	Micheli, Fiorenza	Hopkins Marine Station
	Marine Policy	primary		
	Marine Policy	alternate	David, Aimee	Monterey Bay Aquarium
	Nearshore Ecology	primary		
X	Nearshore Ecology	alternate	Carr, Mark	University of California, Santa Cruz
X	Physical Oceanography	primary	Ramp, Steve	Soliton Ocean Services, Inc.
	Physical Oceanography	alternate	Cheriton, Olivia	United States Geological Survey
X	Shelf & Slope Ecology	primary	Lindholm, James†	California State University Monterey Bay
	Shelf & Slope Ecology	alternate		
	Social Sciences	primary	Pomeroy, Caroline	California Sea Grant Extension Program
	Social Sciences	alternate	Scorse, Jason	Middlebury Institute of International Studies
X	Water Quality	primary	Hunt, John†	University of California, Davis
	Water Quality	alternate		

*Sanctuary Advisory Council Member: Research (Primary)

†Sanctuary Advisory Council Member: Research (Alternate)

RAP Coordinator:

X	Burton, Erica	Monterey Bay National Marine Sanctuary
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GUESTS:

Anderson, David	CeNCOOS
Barbour, Caitlin	Oregon State University
De Beukelaer, Sophie	Monterey Bay National Marine Sanctuary
Delforge, August	CSU STEM VISTA program, CSUMB
Hayes, Dawn	California State University Monterey Bay
Kelly, Brendan	Monterey Bay Aquarium
Susick, Kent	COAST Intern, MBNMS
Taatjes, Jessica	CSU STEM VISTA program, CSUMB
Webb, P.J.	Sanctuary Advisory Council, MBNMS

CONSENT ITEMS

Introductions/Modifications to the Agenda (Lindholm)

PRESENTATIONS REQUESTED BY RAP

Monterey Bay Aquarium (MBA) Conservation Science Research Update (Brendan Kelly/MBA)

- Personal research began in kelp forest in front of MBA prior to MBA existence
- During the past year, Kelly getting idea of where MBA science is
- Overarching goals
 - Improve ability to communicate science
 - Recent years, 3 species programs: otters, tuna, sharks
 - His advice to MBA, MBA strengths are education and outreach; MBARI does research; therefore up the game to communicate science
 - Our researchers as peers to partners
 - Expand from species focus to ecosystem
- Leverage strengths and partners around 3 goals
 - Ocean Wildlife and Ecosystems (*Kelly's opinion: sea otters are doing well, we should communicate their role in ecosystem*)
 - Ocean Health in California
 - Sustainable Seafood
- Strategic plan
 - Goal teams
 - Update conservation research messages
 - New agreements for tuna and shark research
 - Developing forward looking vision
 - Science communication training
- Amplifying Impact
 - President's Council Advisors, Science and Technology
 - 66th Tuna Research meeting (NOAA & IATTC)
 - AASA/AGU and Capitol Hill Briefings
 - Biennial Conference on Marine Mammals
 - American Geophysical Union
 - Tuna Futures Meeting
- Chief Scientist (*one of Kelly's titles*)
 - What is role of a chief scientist?
 - How to define scientific research at MBA?

- Generation and dissemination of new knowledge
- Aquarium's research
 - Applied
 - Husbandry
 - Conservation Research
 - Policy
 - Education
 - Interpretation
- Move to Ecosystem Research
 - Species as elements of ecosystems
 - Conservation in ecosystem context
 - Somebody else's problem/concern?
 - **Role MBA could play that would dovetail well with MBNMS:**
 - **Constantly scan conservation sea-scape**
 - **Identify important conservation gaps**
 - **Fill gaps by facilitating partners or our efforts**
- Setting a high research bar
 - Improve our ability to communicate science
 - MBA researchers as peers to partners
 - Expand from species focus to ecosystem research

CeNCOOS Update: 5 year plan (David Anderson/ CeNCOOS Director)

- Anderson provided overview of Central and Northern California Ocean Observing System (CeNCOOS)
- Vision 2016-2020:
 - CeNCOOS will be a leader within U.S. IOOS, and be recognized and relied upon regionally and nationally as a trusted source of data, information, and expertise to inform wise use of the ocean off central and northern California – CeNCOOS Governing Council
 - Good data cheap: nimble, responsive, extensive
- Being part of Integrated Ocean Observing System (IOOS)
 - Anderson described IOOS (<http://www.ioos.noaa.gov/>)
 - At 10% of capacity
 - Real-time observations, forecasts, data portal
 - CeNCOOS wants to be your source for big data
 - High velocity
 - High variety
 - High volume
 - Compelling science questions: Why we need data-intensive science
 - What is the 'natural' state of populations and communities
 - What will happen in the future? Need predictive capacity
- Marine Biodiversity Observing Network (MBON) collaboration
 - National Marine Sanctuaries as sentinel sites for a demonstration MBON
 - MBNMS/Florida Keys/Flower Garden Banks Focus: Collection of eDNA
 - First year: seascapes perspective
- Why good cheap data is so important

- Enables forecasts
- Enables historical trends
- Enables biological observations
- Discussion questions posed to RAP
 - How can CeNCOOS contribute to your research program?
 - Focusing on Management Plan issues was suggested
 - Dave mentioned that he appreciated SIMoN and the historical timeline as a backdrop for observing data
 - MBNMS staff and MBA could review the CeNCOOS web site and comment on its organization, to facilitate manager and education use
 - **Perhaps the SAC/SEP could review the CeNCOOS web site and outreach materials (maybe Dave could report to SAC)**
 - Can you help us make good data cheap?
 - What is the natural state of these systems? To what state are we returning?
 - What biological changes will occur in the next eight decades driven by:
 - Warming
 - Sea level rise
 - Ocean acidification
- For more information see: <http://www.cencoos.org/>

SANCTUARY ADVISORY COUNCIL UPDATE

Summary of February, April, and June SAC meetings (Hunt/Lindholm)

- Hunt and Lindholm provided brief summaries of the February, April and June SAC meetings
- John and SAC believe MBNMS should contribute to funding Beach COMBERS before asking other agencies to fund it. Maybe next meeting we can decide if RAP should highlight funding of Beach COMBERS or other/different research efforts.
- Agenda topics of note, included:
 - Introduced species final rule
 - Acoustics update; noise strategy submitted for review; no listening station in Monterey Bay approved; will apply again
 - Desalination update
 - Unmanned Aircraft Systems (aka drone) discussion
 - Water recycling diversion plan
 - GFNMS/CBNMS expansions
 - SAC Charter revision
 - Condition Report and Management Plan updates
 - NOAA Ship Shimada research cruise
- See SAC meeting agendas and minutes at: <http://montereybay.noaa.gov/sac/sacma.html>

PRESENTATIONS REQUESTED BY RAP

Condition Report Update (DeVogelaere/MBNMS)

- DeVogelaere provided overview of 2009 report and current revision/addendum
- 50 contributors on revision/addendum

- Revision will help with management plan update

Management Plan Update: Timeline and Scoping (Dawn Hayes/MBNMS)

- Hayes provided overview of schedule (2015-2018)
- MBNMS staff assessed Action Plan(s) status, relevance, if needs revamping
- Staff will finalize list of issues, will publish Notice of Intent, will initiate Scoping in September and solicit input
- RAP can comment collectively, or individually
- Summary of findings will be presented at December SAC meeting
- See MBNMS Management Plan at: <http://montereybay.noaa.gov/intro/mp/welcome.html>

SANCTUARY RESEARCH UPDATE

NOAA Ship *Bell M. Shimada* cruise (DeVogelaere)

- DeVogelaere presented *Earth is Blue* video
- See video at: https://www.youtube.com/watch?v=2B3Gz0rOg_A

HOST PRESENTATION AND DISCUSSION

Collaborative Fisheries Research: Comparison of Trawl Impacts in Northern Monterey Bay (Lindholm)

- Lindholm introduced a new project starting in a few weeks: “traditional trawl” vs “modified trawl (less contact)”
- “You Found What?” Contextualizing the Ecological Effects of Bottom Trawling
 - Direct removal of organisms (targeted or not)
 - Indirect alteration of the environment (we know the least)
 - Trawling smooths seafloor and removes structure-forming inverts, and juvenile fish survivorship is influenced
- Lindholm summarized Morro Bay trawling study with TNC (manipulative trawling)
- Upcoming Monterey Bay survey will compare new modified trawl with traditional trawl; working with Pennisi family; ROV transects will follow path of trawl(s); will look at fuel consumption, catch in trawls; ROV video before and after trawl; go-pro on trawl; sessile inverts, mobile inverts, habitat complexity; control areas are recovering trawl areas (~20 yrs);

SANCTUARY CURRENTS SYMPOSIUM

- In need of new host, location, financial support, and planning committee
- Approximately 300 attend
- RAP discussed symposium aspects, and potential leads or solutions
- For symposium information, see <http://montereybay.noaa.gov/research/symposium.html>

QUICK UPDATES ON NEW HIRES AT INSTITUTIONS; AND FACILITY UPDATES

- Ramp: Marcia McNutt will be head of NAS; Mark Abbott leaving OSU to be head of WHOI

- B. Kelly: revise MBA planning, wrap up October; bringing on new post-doc working with Sal Jorgenson and Steve Palumbi, forensics on shark trade
- Goldbogen: Joseph Wible (Hopkins librarian) retiring
- Carr: new Coastal Biology building construction at UCSC; shepherding through new “coastal sustainability graduate program” (primarily Masters) – combo of Natural/Socioeconomics;
- Lindholm: will hold meeting in September, “Building the Social Enterprise” (address marine debris); next September environmental debate prior to next election (Shary Farr and Lindholm)

SUGGESTED FUTURE AGENDA ITEMS

- Agendize RAP feedback for SAC (per Hunt)
- Coastal Rivermouth Lagoon inventory for state and central coast (Central Coast Wetlands Group/Ross Clark)
- Natural Resource Damage Assessment for Refugio oil spill (Cyndi Dawson/Ocean Protection Council, SAC member)

Future Agenda Items (running list):

- MBNMS Updates:
 - Sanctuary Ecologically Significant Areas (SESAs)
 - Integrated Ecosystem Assessment (IEA)
- Water Quality:
 - Follow-up to Hunt’s WQ presentation (9/12/14), where does all the data go? Successful uses, shared capability, proper use of data (per Score); Roy Mendelson would be good speaker (per Lindley)
 - Ocean-based WQ presentation (per Hunt)
 - Elkhorn Slough Report Card:
http://www.elkhornslough.org/research/waterquality_reportcard.htm
- Leadership changes at Big NOAA, and how affects little NOAA (MBNMS)
- RAP Membership:
 - Revisit RAP member policies including representation: discipline vs institution; available at: http://montereybay.noaa.gov/sac/rap/history/rap_policies.html
- SAC Charter revision
- Acoustic and seismic surveys
 - Continuation of SAC resolution to ban seismic air gun surveys
 - Seismic testing off Connecticut (per Storlazzi)
 - Center of Excellence for acoustics in development at GFNMS, Leila Hatch (SBNMS) involved (per DeVogelaere)
 - Report-out on RAP review of acoustics paper “NOAA ocean and sound strategy”
- Speaker series on science (Oceans Live; *Your Sanctuary* TV)
- Proposed regulation changes relative to CDFW Scientific Collecting Permits

2015 RAP Meeting Schedule and Locations

Date	Host	Location
January 9	Lindholm	CSU Monterey Bay
March 13	Wasson	ESNERR – cancelled
May 8	Carr/Pomeroy	Long Marine Lab, UCSC – cancelled
July 10	Lindholm	CSU Monterey Bay
September 11	Scorse	Monterey Institute of International Studies
November 13	Cheriton/Storlazzi	U.S. Geological Survey
